iPOLiS mobile

English Android ver 2.4

Samsung Techwin's iPOLiS mobile is an android based dedicated application for smartphones and tablet PCs to remotely monitor and control Samsung Techwin's network based products.

This manual is based on using the application on Samsung Galaxy S4 smartphone. When using a different mobile device, the actual button location and interface may be different.

The iPOLiS mobile application can be downloaded freely and installed from Google Play.

❖ To search iPOLiS mobile application from Google Play, type "**iPOLiS**", "**SAMSUNG TECHWIN**", or **"TECHWIN"** and run a search, ignoring the letter case.

❖ User of previous version software (v1.0) needs to register added devices to the newly installed software again. User of version 1.3 or later does not require re-registering devices after updating the software. Updating will migrate device list to the new software.

❖ If enabled with a password lock, updating for smartphone/tablet PCs other than Samsung Galaxy series may experience problems with updating. In such cases, disable password lock during updating.

0. Before Installation

To receive video by connecting your handset to the NW equipment, your handset must satisfy the following requirements.

Item	Recommended
CPU	1.6GHz OctaCore, 1.9GHz QuadCore or higher
RAM	2GB or higher
Available RAM	100MB or higher
OS	Android OS 4.0.x, 4.1.x, 4.3

- The video service involves lots of data transmission, so if you use 3G or 4G (LTE) data communication service, excessive fees can be charged according to your service provider's policy.
- To receive reliable video support, the network speed shall be as fast as 10Mbps, and when you access the 3G network or if you are under unstable Wi-Fi connection environment, the video can be delayed or disconnected.
- The Wi-Fi environment may be weak to the security, so you will have to install a suitable vaccine program on your mobile device. Your handset will be tested for its software quality in the following conditions.
  - Samsung Galaxy S3 (Android v4.1.2) series
  - Samsung Galaxy S4 (Android v4.2.2) series
  - Samsung Galaxy S5 (Android v4.4.2) series
  - Samsung Galaxy Note (Android v4.0.4) series
  - Samsung Galaxy Note 10.1 (Android v4.1.2) series

1. Adding a Device

To Add a Device

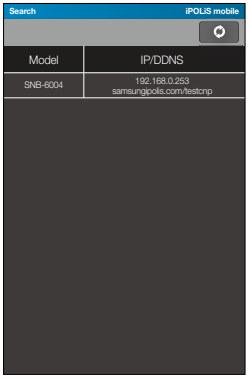
1. Move to the Add Device page.

① If visited with no added device for the first time, <**Add Device**> message appears.

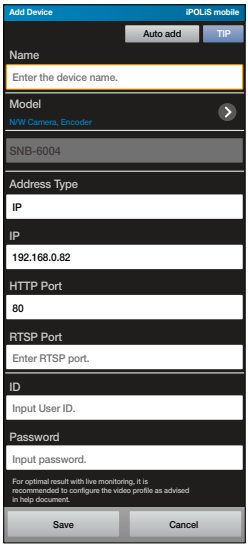
② To add another device when your device is already registered, go to the Settings tab, tap <**Device List**> and touch the menu button in the lower left corner of your handset to launch the Add icon < ⊕ >.

2. In the device list screen, touch the <**Auto add**> button to launch the list of available devices. Touch your desired device.

- When your smart phone is connected to the same Wi-Fi network as your camera, it will automatically search for your camera.
- If you are on a 3G or LTE network, you may not search for the device list.



3. Enter the device information to connect.
If your device is not found, you will need to enter the device information on your own.



- Name : Name the device as desired.
  - If you don't enter the name, the IP address or DDNS of the device to be added is used by default.
- Model : Select one from the product type listed.
  - Actual model name is not required, it's automatically assigned after adding the device.
- Address Type : Enter the IP address or DDNS of the device to connect depending on the internet environment.
  - If you select IP as the address type, enter the IP address; if you select DDNS, enter the DDNS.
- HTTP Port : Enter the connection port for the device.
- RTSP Port : Enter the RTSP port number configured for the device.
  - For DVR and HW NVR, enter the last port number of port range configured for the device. For example, if the range is 4520~4524, enter 4524.
- ID : Enter the device ID that you have specified.
- Password : Enter the password for the device that you have specified.
  - Password setup of the device to be added is optional, there is no need to enter the password.

- If you register your device with <**Auto add**>, model / address type / IP and DDNS / HTTP port are automatically entered.
- SW NVR does not support the auto search function.
- Some DVR models support DDNS-based auto searches.

4. Provide necessary information and touch <**Save**> button.

5. Select a profile.

- User must select a profile for video recording if the device to be added is a network camera or an encoder. A profile's properties can be viewed and edited with Web Viewer, where iPOLiS mobile only provides selecting one that is optimal for the displaying device from existing profiles.

6. Select a channel.

- For adding a DVR/NVR, user must select a channel for the connection. A channel's properties can be viewed and edited with Web Viewer, where iPOLiS mobile only provides selecting one to monitor, for the displaying device.

7. Once completed with connecting to the device, it is added to the device list.

- If settings of the added device are edited on the Web Viewer after adding it to your application, then iPOLiS mobile may fail to recognize changed device. In such cases, move to the editing page of the corresponding device and touch <**Save**> button to revive the connection again.

❖ Recommended Profile Information

It is recommended to set the profile as shown below for optimal Live video monitoring with iPOLiS mobile.

Configuration

Device	Profile Setting	
N/W camera	Setup	Video Setup
DVR Network	Setup	Live Transfer
H/W NVR Network	Setup	Live Transfer
S/W NVR Video	Setup	Live Streaming Video Source 2

Video Profile Setup

Codec	Resolution	Frame Rate	Compression / Transmission Quality
MJPEG	320X240 / CIF	5fps	Normal (10)
H.264	320X240 / CIF	10fps	Normal (10)

- Videos of more than 1.3M pixels are not supported.
- For real-time monitoring, only key frames are provided.
- According to the network stability, connection may suffer from stuttering or interruption.

2. Editing and Deleting the Device List

To edit the device information

1. Touch the Settings tab.
2. Go to the "**Register**" menu and touch the <**Device List**>.
3. Select a device to edit from the list.
   You can also touch < > in the rightmost of the device item.
4. When you have completed your changes, touch <**Save**>.

To delete a device

1. Touch the Settings tab.
2. Go to the "**Register**" menu and touch the <**Device List**>.
3. Touch the menu button on your device.
   Menu icons will appear on the bottom side of the screen.
4. Touch the Delete < > button.
5. Select a device to delete from the list.
6. When done, touch <**OK**>.
   The selected device will be removed from the list.

3. Live Monitoring

To connect to a device

1. Run iPOLiS mobile, and touch the desired device to be connected once device list appears.
2. Selecting a network camera or encoder will display video screen in one-channel mode.
3. Selecting a DVR/NVR will display 4-split video screen in quad mode.

To change the channel

1. If you touch the screen, the control buttons will appear in the upper right corner.
2. Touch the Channel Change icon < > . The camera list appears.
3. Select a channel to display on the screen.

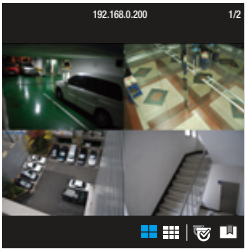
- In quad mode display, 4 channels are grouped as one, which results displaying CH5 ~ CH8 if selected channel 7.
- In quad mode display, 9 channels are grouped as one, which results displaying CH10 ~ CH18 if selected channel 11.
- In case of the 4 Channel mode, you can move in a group of 4 channels.
- In case of the 9 Channel mode, you can move in a group of 9 channels.
- The 9 channel mode is provided only in NVR.

	Touch and slide your finger on the screen from right to left to slide over to the next 4/9 channels in quad mode display.

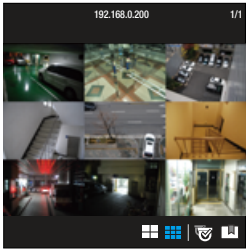
To switch to one-channel mode

	Touch and hold briefly one of displayed 4/9 channels on the screen, or double touch on the desired split to switch to one-channel display mode with the selected channel.

- If you want to switch to the split mode, then in the bottom of the screen, click the channel icon(4, 9 ch).



<4 Channel mode>



<9 Channel mode>

To add video to Favorite list

The user can add video to their Favorite list.

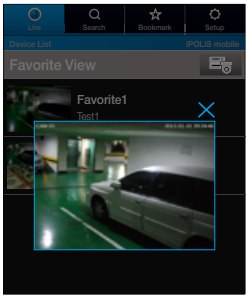
1. Select your video, then go to the upper right corner and touch the < > button.
2. When the Add popup appears in the Favorite list, enter a note and save it. Inserting a note is optional, and a bookmark can be saved without input.

- Can register max 100 favorites. If more than 100, you need to delete some.

3. If you want to check the Favorite list, go to the Live tab and touch the < > button.

To view the video marked as favorite

1. Select Live-< > Tab.
2. If you click a desired item in your favorite list, the selected list's live video will be played.
3. Click the desired thumbnail image in the list to view a magnified image.

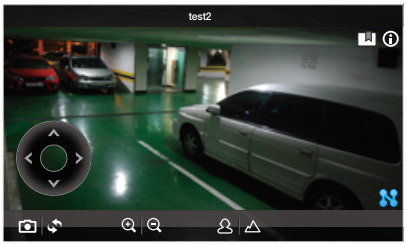


To edit or delete favorites

Press the <**Edit**> button to modify favorites.
Press the <**Delete**> button to delete favorites.

4. Controlling the Live Video

iPOLiS mobile supports video control only in one-channel mode.



To check device information

You can check the configuration information of a registered device.

1. Touch Check Information < ⓘ > icon in the upper right corner.
2. A popup window with basic information of the connected device appears.

- To change the device settings, you should make a change manually for each setting item.

To save the captured screen

Captures the currently displayed image and saves to the device storage as an image file.

1. Touch the screen to display menu and touch < 📷 > icon.
2. The captured screen is saved as an image file in the device's image folder.

To flip video image displayed

You can flip video image by rotating 180°.

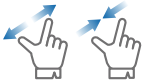
1. Touch the screen to display menu and touch < > icon.
2. Touch again to revert to the original screen.

To control zooming

You can control the network camera's optical zooming remotely.

1. Touch the screen to display control buttons near the bottom.
2. For zoom-capable cameras, touching < > icon zooms in, and touching < > icon zooms out.

- Zooming range and level differ from camera to camera.
- Even if your camera does not have PTZ functions, as long as it provides the external PTZ functions, the zoom button can be used.



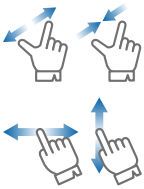
You can also zoom in by pinch open using two fingers on the screen. To zoom out, pinch close on the screen.

To control digital zooming

This function is for cameras not supporting optical zooming.

1. Touch the screen to display control buttons near the bottom.
2. Touch < ⊕ > button to zoom in, and touch < ⊖ > to zoom out digitally.

- Current digital zooming level is noted next to the digital zoom box, and digital zooming supports zooming up to x16.



You can also zoom in by pinch open using two fingers on the screen. To zoom out, pinch close on the screen.

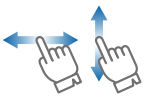
Touch and hold to drag the screen in any direction to reveal the hidden part of the image if enlarged bigger than the screen.

To control Pan / Tilt

Supported by PTZ cameras only.

1. Touch the screen to display Pan/Tilt control buttons on the screen.
2. Touching the direction button moves camera's pan/tilt to the next step one by one.
3. Touch and hold any of the direction buttons to pan and tilt the camera continuously in the selected direction.

- Pan/tilt range and level differ from camera to camera.
- Even if you camera does not have PTZ functions, as long as it provides external PTZ functions, the Pan/Tilt functions can be used.

	Drag the screen in up/down/left/right direction to pan/tilt the camera. Note that iPOLiS mobile does not recognize diagonal direction, which will interpret user's dragging as the closest vertical or horizontal dragging.

- Pan/tilt control result requires time for processing, since the command should reach camera device and performed by the camera. Video data size grows as the camera moves, which may result in delayed display. In 3G networks, it may take more than a few seconds to receive video data.
- In a network environment of poor stability, using pan/tilt control with lower video quality settings may help reduce such delays.

To adjust focus

Supported by PTZ cameras only.

1. Touch the screen to display focus control buttons on the screen.
2. Use Near Focus < > and Far Focus < > icons to adjust the focus range.

- This function is provided for DVR/NVR models

To listen to the Live Audio

Live audio is provided if the network camera supports audio transmission. In Wi-Fi and 4G (LTE) networking environments, the storage device supports audio playback in 1-channel mode.

- In case of DVR, audio becomes not available for setting of less than 200 kbps.

If you want to run presets

The preset saved in the camera can be executed.

1. Click the preset button to upload the saved preset list.
2. Select the desired list. The preset will be performed according to the scenario saved in the camera.

- The preset function is provided only for the camera models that support external PTZ functions and the new CGI(SUNAPI).

5. Searching / Playing Saved Video

To search by date/time

Touch Search < > tab on top of the main screen to display list of devices for search.

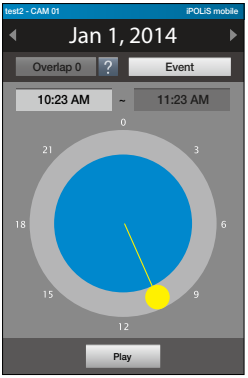
1. Select a device by touching it.
2. Select a channel from the list to be searched.
3. Dates containing data of the selected device and channel are marked in the calendar. Touch < , > button on the calendar's both ends of year/month indicator to traverse to the previous/next month.
4. Touch a date to search video, and the circular timeline (24 hours) appears. Timeline is marked with color for time zones having recorded data to be searched.

- If there are overlapping multiple data for the same time range, an overlapping list appears.
- For a network camera, the above 2, 3 channel selection processes are omitted.

To play searched video

After searching with date/time, set the beginning time to play the selected video.

1. Check the timeline and drag [ ] to the start time, or enter the start time on your own.
   - The start time should be set to less than 60 minutes.
2. Touch the <**Play**> button to start video playback, and it will play for about 60 minutes from the start time.

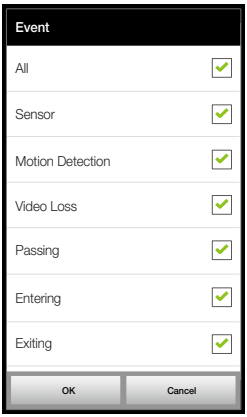


- If the recorded video being played has interval of having no video, playback skips such interval and continues from the next existing position. The displayed play time may be different than the actual recording time depending on performance of network and playing device.
- For the efficiency, Audio is disabled during play.

To play event searched video

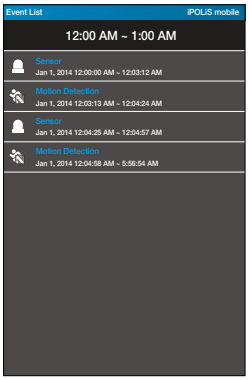
After searching based on date/time, set the beginning/end time to play the selected video.

1. Touch the <**Event**> button to select a desired event and touch <**OK**>.
2. Check the timeline and drag [●] to the start/end time or enter the start/end time on your own.
   - The start and end time should be set to less than 60 minutes.



3. Touch the <**Search**> button to show the list of events within the designated time period.

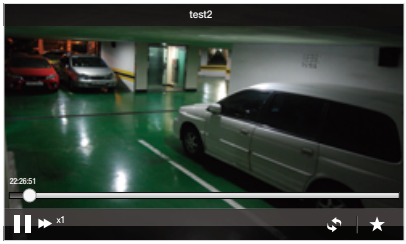
4. Select the desired list to play video.


Event List
iPOLiS mobile
12:00 AM ~ 1:00 AM
Sensor
Jan 1, 2014 12:00:00 AM ~ 12:03:12 AM
Motion Detection
Jan 1, 2014 12:03:13 AM ~ 12:04:24 AM
Sensor
Jan 1, 2014 12:04:25 AM ~ 12:04:57 AM
Motion Detection
Jan 1, 2014 12:04:58 AM ~ 5:56:54 AM

- If the video ends earlier than 60 minutes from the beginning, it will skip to the next existing video and continue playback.
  Displayed playback time may be slightly different from the actual recording time due to the network or the decoding performance of the playback device.
- For smooth playback, audio is not supported during playback.

To control playback

It provides basic playback control.



1. Touch the screen to display control buttons near the bottom.
2. To stop playback, touch < ❚❚ > button to pause and the button switches to < ▶ > once paused.

3. To resume again, touch < ▶ > button.
4. To control playback speed, touch < ▶▶ > button and the playback speed indicator appears.
5. The video is played at the selected play speed.
6. Touch < > icon to flip video image by rotating 180°.

To use the Timeline

You can jump to a certain point of playback by selecting time point on the timeline.

1. Touch the screen to display 60-minute timeline.
2. Touch the time picker < > on the timeline, and drag it to a desired time point to skip to that point.
3. Touching the timeline automatically pauses the video playback. Move the time picker and touch < ▶ > button to resume playing.

To use Bookmark

You can bookmark a certain playback point on the video as a starting point.

1. While playing a video, touch < ★ > button at a desired point to create a bookmark.
2. The Add Bookmark popup appears, enter a note of the bookmark and save it. Inserting a note is optional, bookmark will be saved without a note.

- Up to 100 bookmarks can be added, and selectively deleted once exceeded.

3. To play a video from a bookmarked point, move to the Bookmark < ☆ > tab on top of the main screen.
4. Select a desired bookmark from the list.

- Playback control for bookmarked video is the same as that of searched video.
- While playing the bookmark, you can use the bookmark function again.

❖ **Amount of Network Data Transfer for stored video**

Codec	Resolution	Frame Rate	Compression	Bandwidth
H.264	640 x 480	10fps	10	0.69 Mbps
H.264	640 x 480	20fps	10	1.30 Mbps
H.264	800 x 600	10fps	10	1.10 Mbps
H.264	800 x 600	20fps	10	1.90 Mbps

- Above network data transmission is calculated based on SNB-7000.
- Videos of more than 1.3M pixels are not supported.
- For smooth and proper playback of stored recordings, it requires downloading **bandwidth** more than the specified minimum bandwidth in case if the network has interference.

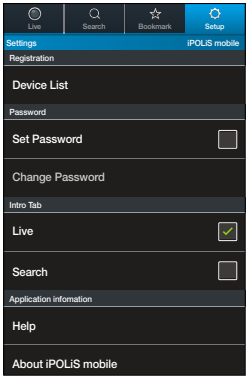
6. Setting the iPOLiS mobile

To Add a Device

- Refer to pages 3 ~ 7.

To set/cancel/change password

1. Touch the Settings < > tab on the main screen. Select the <**Set Password**>.



2. Enter a new password.
   The <**Set Password**> checkbox will be changed to < >. Then, you are prompted to enter a new password.

- Password should be a combination of alphanumeric letters and special characters with minimum eight digits and maximum thirty two digits or a combination of alphanumeric letters with minimum 10 digits and maximum thirty two digits.
- In the following cases, security level is low. It is not recommended but still allowed for settings.
  - 3 or more consecutive letters(ex: 123, abc)
  - 4 or more consecutive numbers or alphabets(ex: asdf, 7890)
  - 3 or more repeating letters(ex: !!!, 111, aaa)
- The following special characters are allowed in your password.
  - -/:;()₩&@.,?!'"[]{}#%^*+=_\|~<>$£¥

3. To cancel setting the password, touch <**Set Password**> again.
4. If you enter the currently registered password, the password setting will be canceled.

5. To change the password, touch <**Change Password**> and enter a new password.

- If you forgot password, uninstall the application and then download it to install again.

To set the starting page

1. Select the start page screen from the "**Intro Tab**" menu of the settings page, which will be displayed once iPOLiS mobile is executed.
2. Selecting the <**Live**> will display live device list where <**Search**> will display device search at the beginning.

To see help screen

In the Setup tab, touch <**Help**>.

- iPOLiS mobile provides help in 13 different languages.

To check the software version

1. Touch <**About iPOLiS mobile**> in the settings page.
2. You can check the information of the current software version.

- This application uses FFmpeg under LGPL v2.1.

7. Models supporting iPOLiS mobile v2.4

Device Model			Firmware version
N/W Camera	Box/Dome	SNB-5000, SND-5080/F, SNV-5080, SNV-5010, SNO-5080R, SNV-5080R	v2.10 or Higher
		SNB-7000, SND-7080/F, SNV-7080, SNO-7080R, SNV-7080R	v1.20 or Higher
		SNB-1001, SND-1080, SND-1011, SNV-1080, SNO-1080R, SNV-1080R	v1.00 or Higher
		SNB-3002, SND-3082/F, SNV-3082	v1.00 or Higher
		SNB-5001, SND-5061, SND-5011, SND-5010	v1.00 or Higher
		SNB-7001, SND-7061, SND-7011	v1.00 or Higher
		SNB-7002, SND-7082/F, SNV-7082, SNO-7082R	v1.00 or Higher
		SNZ-5200	v1.05 or Higher
		SNV-3120	v1.24 or higher
		SNV-7082V, SND-7082V, SND-7082FV, SNO-7082RV	v1.00 or Higher
		SNB-6004, SNB-6003, SND-6084, SND-6083, SNB-5004, SNB-5003, SND-5084, SNV-5084, SNV-6012M, SNV-6084, SNO-6011R, SND-6011R	v1.00 or Higher
		SNO-6084R, SND-6084R, SNV-6084R	v1.00 or Higher
		SNF-7010, SNF-7010V, SNF-8010/VM	v1.00 or Higher
		SND-7084/R, SNO-7084R,SNV-6013, SNV-7084/R, SNB-6000, SNB-6010(ATM), SNB-7004	v1.00 or Higher
	PTZ	SNP-3120, SNP-3120V, SNP-3120VH	v1.27 or Higher
		SNP-5200, SNP-5200H	v2.00 or Higher
		SNP-5300, SNP-5300H	v1.00 or Higher
		SNP-3371, SNP-3371H, SNP-3371TH	v1.01 or Higher
		SNP-3302, SNP-3302H	v1.01 or Higher
		SNP-6200, SNP-6200H, SNP-6200RH, SNP-6201, SNP-6320/H	v1.00 or Higher
Encoder		SPE-100, SPE-400, SPE-1600R, SPE-101	v1.04 or higher
DVR	Live & Playback	SRD-1670/1650/1630/1610(D/DC), SRD-870/850/830(D/DC), SRD-470(D)	v1.12 or higher
		SRD-1652D/852D, 1650DU	v1.12 or higher
		SRD-1671/1651/871/851/471	v1.12 or higher
		SDR-5100, SDR-4100/4101	v1.02 or Higher
		SDR-3100	v1.09 or Higher
		SDR-5200/4200, SRD-1654D/854D, SRD-473D	v1.00 or Higher
		SRD-1673(D)/873D, 1653D	v1.01 or Higher
		SRD-476D/876D/1676D	v1.00 or Higher
		SRD-456/856/1656	v1.00 or Higher
		SDR-3102/4102/5102	v1.00 or Higher
	Live only	SRD-440	v1.05 or higher
		SRD-442/842/1642	v1.02 or higher
		SRD-1640/840	v1.03 or higher
		SRD-1641/841	v1.03 or higher
		SDE-5001/5002/4001/4004(V)	v1.02 or higher
		SDE-3001/3003	v1.06 or higher
		SDE-4001/4002/5001/5002	v1.00 or higher
NVR	H/W	SRN-470D, SRN-1670D, SRN-1671, SRN-1000	v1.05 or higher
		SRN-4000, SRN-472S	v1.00 or higher
	S/W	NET-i ware	v1.39 or higher

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OPEN SOURCE ANNOUNCEMENT

- **LGPL 2.1** : FFmpeg
- **BSD 2.0** : ed-pad
- **MIT License V2** : dlc.sh-GUI, SAS-iPad-App, TweetNow

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Version 2.1, February 1999

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